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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,433	01/06/2004	Hajime Nakagawa	FS-F03221-01	3991
37398	7590	04/19/2005	EXAMINER	
TAIYO CORPORATION 2111 JEFFERSON DAVIS HIGHWAY #412, NORTH ARLINGTON, VA 22202			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/751,433	Applicant(s) NAKAGAWA ET AL.	
	Examiner Thorl Chea	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on January 6, 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This first office action is responsive to the communication on January 6, 2004; claims 1-23 are pending in this instant application.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 18-20, 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishizuka et al (US Patent No. 6,140,038), Uytterhoeven et al (US Patent No. 6,143,488), Siga et al (US Patent No. 4,332,889), Toya et al (US Patent No. 5,998,126), Matsumoto et al (US Patent No. 5,958,668) and Ohzeki (US 2002/0197570A1). Ishizuka et al disclose a photothermographic material containing photosensitive silver halide, non-organic silver salt, a reducing agent and binder. The polymer latex has glass transition temperature from -30 °C to 90 °C, and the amount thereof in the image formation layer constitutes at least 50 % by weight of the total binder; the polymer latex includes that containing butadiene monomer; the photosensitive silver halide includes silver chloride, silver chlorobromide, and silver bromiodide, and the size thereof is less than 0.20 micron; and the reducing agent includes a bisphenols. See especially column 5, lines 9-19; column 4, lines 17-20; columns 117-118, claims 1-9; column 10, lines 65-67; column 11, lines 12-20, and column 19, lines 1-6.

Uytterhoeven et al disclose the use of a silver halide having silver iodide content at least 80 mole % having grain size of less than 40 nm to provide photothermographic material with

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excellent post-processing stability and the use of polymer latex as binder. See abstract and column 6, lines 52-53 and column 4, lines 26-50. Siga et al in column 6 discloses the use of silver bromoiodide having molar ratio of silver iodide to silver bromide of 30/70 to 98/2 to provide a photothermographic material to have improved spectral sensitivity as well as excellent storage stability. See column 6, lines 42-68 and abstract. Toya et al discloses the use of silver halide having silver iodide from 0.1 to 40 mol % and having grain size from 0.01 micron to 0.08 micron in column 16 and the photothermographic material is to be exposed using laser having wavelength from 300 nm to 700 nm in column 2, lines 1-11. Matsumoto discloses the use of bisphenol and polyhalogenate compound in the photothermographic material in column 18 and column 2. Ohzeki discloses bisphenol reducing agent on pages 36-39; the hydrazine compound page 21, column 2, formula (D) and pages 22-28; the polyhalogenate compound on page 39, [0268] and the compound that can release the electron of formula (I) on pages 55, claims 1-4.

The additives claimed in the present claimed invention has been known and used in photothermographic art. The silver halide having iodide content more than 5 % by mole has been known in either Uytterhoeven et al, Siga et al and Toya. The bisphenol reducing agent has been is taught in Ishizuka et al, and known in Ohzeki et al. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use silver halide having iodide content taught in Uytterhoeven et, Siga et al or Toya et al in combination of known bisphenol taught in Ohzeki et al or Matsumoto et al with a reasonable expectation of a material with high contrast and excellent suitability for heat development.

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4. Claims 1-13, 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ohzeki et al (US Patent No. 2002/0197570A1), Uytterhoeven et al (US Patent No. 6,143,488), Siga et al (US Patent No. 4,332,889), and Toya et al (US Patent No. 5,998,126). Ohzeki et al disclose material substantially as claimed except specifically disclose the use of silver halide having silver iodide content 5 % by mole or more. See the photothermographic material on pages 55-56, claims 1-20; the bisphenol type reducing agent on page 35, [0248]; the use of polymer latex in the image forming having glass transition temperature between 20 °C to 80 °C including that containing butadiene from page 32, [0184] to pages 34, [0231]; and silver halides includes silver chloride, silver chloriodide, silver bromide, silver bromiodide or silver iodochlorobromide on page 19, [0133].

Uytterhoeven et al discloses the use of a silver halide having silver iodide content at least 80 mole % having grain size of less than 40 nm to provide photothermographic material with excellent post-processing stability and the use of polymer latex as binder. See abstract and column 6, lines 52-53 and column 4, lines 26-50. Siga et al in column 6 discloses the use of silver bromiodide having molar ratio of silver iodide to silver bromide of 30/70 to 98/2 to provide a photothermographic material to have improved spectral sensitivity as well as excellent storage stability. See column 6, lines 42-68 and abstract. Toya et al discloses the use of silver halide having silver iodide from 0.1 to 40 mol % and having grain size from 0.01 micron to 0.08 micron in column 16 and the photothermographic material is to be exposed using laser having wavelength from 300 nm to 700 nm in column 2, lines 1-11. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use silver halide including silver halide having silver iodide content known in either Uytterhoeven et, or Siga et

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al or Toya as photocatalyst for the material taught in Ohzeki to provide an invention as claimed. The compound of general formula (M) in claim 4 belong to butadiene monomer taught in Ohzeki. Also, Toya et al discloses the process of exposing a photothermographic material with laser beam having wavelength 300 nm to 700 nm. The intensity of 1 mW/mm<sup>2</sup> to 50 w/mm<sup>2</sup> is inherently related to the intensity of the laser.

5. Claims 14, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ohzeki et al (US Patent No. 2002/0197570A1), Uytterhoeven et al (US Patent No. 6,143,488), Siga et al (US Patent No. 4,332,889), and Toya et al (US Patent No. 5,998,126) as applied to claims 1-13, 15-25 above, and further in view of Fukui et al (US Patent No. 2001/0102502) and EP 1096310 A2 (EP'310). The development accelerator in claim 14 is taught in Fukui et al in the abstract and page 6, compound 2-1 to 2-8 to pages 7-9. EP'310 discloses to expose a photothermographic material using laser output at least 1 mW, and more preferably 40 mW. It would have been obvious to the worker of ordinary skill in the art to use a known development accelerator taught in Fuki et al to as development accelerator of the material taught in Ohzeki et al. The peak strength of laser presented in claim 23 is taught in EP'310, and it would obvious to the worker of ordinary skill in the art to use the laser output taught therein in the process for forming an image using the material obtained by the combination of the applied art above, and thereby provide a process as claimed.

#### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/722,553 in view of Toya et al (US Patent No. 5,998,126) and Matsumoto et al (US Patent no. 5,958,668). The use of silver halide having silver iodide of 0.1 to 40 mole % with grains size of 0.01 to 0.1 micron is taught by Toya et al in column 16, lines 50-60 and abstract; the polyhalogenate compound has been used as antifoggant is taught in Matsumoto et al in columns 9-10, compounds A-4 to A-15. It would have been obvious to the worker of ordinary skill in the art to use the known silver halide including silver halide having containing silver iodide taught in Toya et al and the antifoggant taught in and Matsumoto et al in the material claimed in the copending application with a expectation of achieving a material having an image with a minimized interference fringe and with improved fogging property.

8. Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 10/724,706 in view of Toya et al (US Patent No. 5,998,126) and Matsumoto et al (US Patent No. 5,958,668). The reducing agent of formula R has been known in used in the photothermographic material such as taught in Matsumoto et al in column 18. The use of silver halide having silver iodide of 0.1 to 40 mole % with grains size of 0.01 to 0.1 micron is taught by

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Toya et al in column 16, lines 50-60 and abstract. It would have been obvious to the worker of ordinary skill in the art to use the known silver halide including silver halide having containing silver iodide in the material claims in the copending application with a expectation of achieving a material having an image with a minimized interference fringe and with improved fogging property.

This is a provisional obviousness-type double patenting rejection.

### ***Conclusion***

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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*Thorl Chea*

Thorl Chea  
Primary Examiner  
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Tchea *tch*  
April 13, 2005